

REMARKS/ARGUMENTS

STATUS OF CLAIMS

In response to the Office Action dated November 2, 2007, claims 42-46, 49-55, 57, 58, 60 and 61 have been amended. Claims 42, 49 and 59 are now pending in this application. No new matter has been added. Claims 43-48, 50-58, 60 and 61 have been withdrawn from consideration as being directed to independent species.

The indication that claim 49 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims is acknowledged and appreciated.

By this response, claim 49 has been amended to be in independent form including all the limitations of base claim 42. Therefore, claim 49, as amended, is believed to be allowable.

OBJECTION TO CLAIMS

The Examiner has objected to claim 42 as he maintains that “plural” at lines 4-6 and 8 should be replaced with “plurality.”

By this response, claim 42 has been amended as suggested by the Examiner. Therefore, withdrawal of the objection to claim 42 is respectfully solicited.

It should be noted that claims depending from claim 42 have been amended for consistency with this change to claim 42.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claim 42 has been rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements. The Examiner maintains that “the omitted structural cooperative relationships are the brightness compensation means relationships to the rest of the system (is it on the lamps? Is it under the lamps? Is it above them?).”

The rejection is respectfully traversed.

35 U.S.C. § 112, second paragraph states:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention

Case law precedent has established that an analysis under 35 U.S.C. § 112 begins with a determination of whether the claims do, in fact, set out and circumscribe a particular area with a reasonable degree of precision and particularity. Claim language is viewed not in a vacuum, but in light of the teachings of the prior art and of the application disclosure as it would be interpreted by one possessing the ordinary level of skill in the art. *In re Johnson*, 558 F.2d 1008, 194 USPQ 187 (CCPA 1977); *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971).

A decision on whether a claim is invalid under this section of the statute requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification, *Seattle Box Co. v Industrial Crating & Packing*, 731 F.2d 381, 385, 221 U.S.P.Q. 568, 574 (Fed. Cir. 1984).

In determining definiteness, no claim may be read apart from and independent from the disclosure on which it is based. *In re Cohn*, 169 U.S.P.Q. 95, 98 (CCPA 1971); *In re Kroegel*, 183 U.S.P.Q. 610, 612 (CCPA 1974):

... claims are not to be considered in a vacuum, "but always in light of the teachings of the prior art and the particular application disclosure as it would be viewed by one possessing the ordinary level of skill in the pertinent art." When considered in light of the prior art and the specification, claims otherwise indefinite may be found reasonably definite.

In addition, the sixth paragraph of 35 U.S.C. § 112 permits an element in a claim for a combination to be expressed as a means or step for performing a specified function without recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof. See *In re Donaldson*, 16 F.3d 1189, 29 USPQ2d 1845 (Fed. Cir. 1994).

The specific interrelationships of brightness compensation means is/are fully disclosed in the written description (see, for example, page 26, line 17 to page 31, line 8) and the recited brightness compensation means cover the corresponding structure, material and acts disclosed in the specification. While claims are always open to interpretation in light of the disclosure, it is submitted that a reasonable interpretation of claim 42 raises no question that recited subject matter is set forth with the required degree of particularity.

The criticism of claim 42 is urged to be directed to breadth of scope and not indefiniteness. As such, the rejection improperly attempts to limit the scope of the claims by requiring additional limitations under the guise that such limitations are necessary to make the claims definite.

It is submitted that when the claim language is read in light of the specification, an artisan would readily understand the metes and bounds of the claimed invention. The fact

that a claim is broad does not justify a rejection on the ground that the claim is indefinite or incomplete (*see § 706.03(d) of the M.P.E.P.*). Therefore, it is believed that claims 42 is definite and it is respectfully urged that the rejection be withdrawn.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

Claims 42 and 59 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Murase et al. (USPN 5,178,447).

The Examiner contends that the edge light type backlight unit of Murase et al. meets the terms of the claims.

The rejections are respectfully traversed.

Independent claim 42 delineates, *inter alia*:

driving means arranged on one-end side of the plurality of fluorescent lamps for driving the plurality of fluorescent lamps by applying a high voltage to one-end terminals of the plurality of fluorescent lamps, wherein

brightness compensation means are provided for compensating for uneven brightness in the longitudinal direction of the plurality of fluorescent lamps by decreasing the brightness of the fluorescent lamps on the one end side or increasing the brightness of the fluorescent lamps on the other end side or controlling brightness in combination from the both end sides.

Thus, brightness compensation means are provided in a backlight unit comprising a plurality of straight tube fluorescent lamps arranged substantially parallel to one another in the longitudinal direction of fluorescent lamps. In addition, driving means are arranged on one-end side of the plurality of fluorescent lamps for driving the plurality of fluorescent lamps by applying a high voltage to one-end terminals of the plural fluorescent lamps.

These days, backlight units are becoming larger and larger in size. However, if straight tube fluorescent lamps are used and driving means are arranged on one-end side of the straight tube fluorescent lamps, the farther the fluorescent lamps are from the driving means (nearer to the other end side), the darker they become, causing uneven brightness (see page 8, lines 12-17 of the present application). That is, since the fluorescent lamps are driven by a high voltage at a high frequency, the air layer acts as a stray capacitance and causes a leak current to flow from the fluorescent lamps into the lamp reflector and surrounding metal objects, and the currents on the low voltage side of the fluorescent lamps decrease. As a result, the brightness on the low voltage side of the lamps becomes relatively lower than that on the high voltage side of the lamps (see, page 8, lines 2-11 of the present application).

This uneven brightness becomes more noticeable as an apparatus becomes larger and accordingly, it has become more necessary to control it. Therefore, brightness compensation means, as recited in independent claim 42, is required.

By solving the problem of uneven brightness using the invention recited in independent claim 42, it is possible to constantly supply the light with uniform surface brightness in a backlight unit, even though the backlight unit is large. As recited in independent claim 42, the brightness compensation means compensates “for uneven brightness in the longitudinal direction of the plurality of fluorescent lamps by decreasing the brightness of the fluorescent lamps on the one end side (where the driving means is arranged) or increasing the brightness of the fluorescent lamps on the other end side or controlling brightness in combination from the both end sides”, when a high voltage is applied to one-end terminals, near to the driving means of the plurality of fluorescent

lamps that are arranged substantially parallel to one another in the longitudinal direction of the fluorescent lamps.

The direct type backlight unit recited in independent claim 42 has the following advantages:

a) It is possible to control uneven brightness and to increase reliability simultaneously, because the occurrence of the discharge between the adjacent fluorescent lamps is suppressed and the stable discharge of the fluorescent lamps itself is secured by arranging the high brightness side (namely, the high-voltage side terminal) of the plural fluorescent lamps on the side near to the driving means (see, page 10, lines 12-19 of the present application).

b) It is possible to minimize an increase in cost for providing brightness compensation means (i.e., it is possible to minimize an increase in cost for providing any brightness compensation means) because the brightness compensation means can be simplified (considering the control of the reflectance of the reflecting portion recited in claim 43 of the present application, for example, it is performed only by controlling both ends of light emission surface, the near end side and far end side of the driving means).

c) It is possible to compensate the brightness and minimize a drop of brightness at the same time because a shorter lead wire can be used to connect the driving means and the high-voltage side terminal of the fluorescent lamp by arranging the high brightness side (namely, the high-voltage side terminal) of the fluorescent lamp near to the driving means and this prevents generating a stray capacitance.

On the other hand, Murase et al. does not take into consideration the above-mentioned problems involved in making a larger sized backlight unit.

Further, in Murase et al., there is no description regarding the position where the driving means is arranged and there is also no description of how to provide brightness compensation means in relation to the arrangement of the driving means.

In the Office Action, the Examiner notes that Murase et al. does not disclose driving means, but maintains that driving means are inherent. However, even if this were the case, there is nothing inherent regarding where a driving means is provided or deciding how to provide brightness compensation according to the position where driving means are arranged, as described above. Therefore, claims 42 and 59 are patentable over Murase et al. which does not disclose or suggest a relationship between driving means and brightness compensation means, as recited in independent claim 43.

REJOINDER OF CLAIMS

If amended independent claim 42 is allowed, withdrawn claims 43-48, 50-58, 60 and 61 will depend from or require all the limitations of amended independent claim 42. In such case, withdrawal of the restriction requirement as to claims 43-48, 50-58, 60 and 61 (non-elected species), as well as their allowance are respectfully solicited (see MPEP § 821.04 Rejoinder).

CONCLUSION

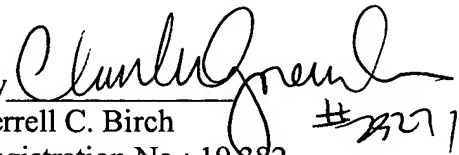
In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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